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#### REMARKS

Favorable reconsideration is requested in view of the above amendments and following remarks. Claims 1-6 and 14-17 have been amended. The amendment to claims 5 and 15 are supported by the original disclosure, for example, at page 17, lines 2-6 of the specification. Claims 1-4, 6, 14 and 16-17 have been amended editorially. No new matter has been added. Claims 1-17 remain pending in the application.

## Claim Objections

Claim 14 is objected to for informalities. Claim 14 has been amended, taking the issues noted in the objection into account.

Withdrawal of the objection is respectfully requested.

## Claim Rejections - 35 USC § 101

Claims 1-5 are rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-3 recite an isolated polypeptide. Claims 4-5 recite an isolated DNA. Claims 1-5 are directed to statutory subject matter.

Withdrawal of the rejection is respectfully requested.

### Claim Rejections - 35 USC § 112

Claims 1-17 are rejected under 35 USC 112, second paragraph, as being indefinite.

Claim 1 recites an isolated polypeptide consisting of the amino acid sequence identified in (a) or (b). Claim 1(a) recites the amino sequence of SEQ ID NO: 1. Claim 5 recites an isolated DNA consisting of the nucleotide sequence identified in (a), (b) and (c). Claim 5(a) and (c) recite the nucleotide sequence of SEQ ID NO: 3. Claim 5(b) and claim 15(b) recite a nucleotide sequence that is capable of hybridizing, under stringent conditions, to a DNA having a nucleotide sequence that is complementary to the nucleotide sequence of SEQ ID NO: 3, the stringent conditions being washing with an aqueous solution consisting of 1.5 mM trisodium citrate, 15 mM sodium chloride and 0.1% sodium dodecyl sulfate at 65°C. Claims 15 and 16 depend from claim 14. Accordingly, Applicants respectfully submit that claims 1-17 are definite.

### Enablement

Claims 1-17 are rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. As indicated above, claim 1 recites an isolated polypeptide consisting of the amino acid sequence identified in (a) or (b). Claim 1(a) recites the amino acid sequence of

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SEQ ID NO: 1. Claim 1(b) recites an amino acid sequence resulting from substitution, insertion, deletion, and/or addition of one amino acid in the amino acid sequence of SEQ ID NO: 1. Claim 1 further recites that the isolated polypeptide has amidase activity. Thus, claim 1 is limited to those polypeptides having amidase activities that are derived from SEQ ID NO: 1. Claim 5 recites an isolated DNA consisting of the nucleotide sequence identified in (a), (b) and (c). Claim 5 recites that the isolated DNA encodes a polypeptide having amidase activity. Claim 15 recites the use of a recombinant plasmid including a DNA consisting of the nucleotide sequence identified in (a), (b) and (c). Claim 15 also recites that the DNA included in the recombinant plasmid encodes a polypeptide having amidase activity. Thus, claims 5 and 15 likewise are limited to those polynucleotides encoding for polypeptides having amidase activities that are derived from SEQ ID NO: 3.

Accordingly, Applicants respectfully submit that claims 1-17 are commensurate in scope of the specification.

### Deposit

Claims 3, 8, 11, 13 and 15 are rejected because the bacterial strains are not publicly available. To satisfy the deposit requirement for deposits made under the Budapest Treaty, the Examiner required a statement that the specific strains have been deposited under the Budapest Treaty and that the strain will be available to the public under the conditions specified in 37 CFR 1.808. A Communication Regarding Deposit is submitted herewith. Applicants submit that the Communication satisfies the deposit requirements under 37 CFR §§ 1.803-1.808.

Based on the forgoing, Applicants respectfully request withdrawal of the enablement rejection.

### Written Description

Claims 1-17 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Regarding claims 1-3 and 12-16, claim 1 is limited to those polypeptides having amidase activities that are derived from SEQ ID NO: 1. Regarding claims 4-11, 15 and 17, claims 5 and 15 are limited to those polynucleotides encoding for polypeptides having amidase activities that are derived from SEQ ID NO: 3. The polypeptides of claim 1 are described on page 15, lines 1-7 of the specification. The polynucleotides of claims 5 and 15 are described on page 17, lines 7-17 of the specification. Accordingly, Applicants respectfully submit that claims 1-17 comply with the written description requirement.

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### Claim Rejections – 35 USC § 102

Claims 1, 4-7, 9, 10, 14, 15 and 17 are rejected under 35 USC 102(e) as being anticipated by US Publication No. 2004/0023257 (Barton et al.). Applicants respectfully traverse the rejection.

Barton et al. disclose amino acid sequences of polypeptides having amidase activity. The reference further discloses nucleotide sequences of polynucleotides encoding polypeptides that have amidase activity.

However, Barton et al. do not disclose an isolated polypeptide consisting of the amino acid sequence of SEQ ID NO: 1 or an amino acid sequence resulting from substitution, insertion, deletion, and/or addition of one amino acid in the amino acid sequence of SEQ ID NO: 1 as recited in claim 1.

Barton et al. further do not disclose the isolated DNA consisting of the nucleotide sequence of SEQ ID NO: 3, a nucleotide sequence that is capable of hybridizing under stringent conditions to a DNA having the nucleotide sequence that is complementary to the nucleotide sequence of SEQ ID NO: 3, the stringent conditions being washing with an aqueous solution consisting of 1.5 mM trisodium citrate, 15 mM sodium chloride and 0.1% sodium dodecyl sulfate at 65°C, or a nucleotide sequence resulting from substitution, insertion, deletion, and/or addition of one nucleotide in the nucleotide sequence of SEQ ID NO: 3.

Accordingly, Barton et al. do not anticipate claims 1 and 5 and their dependent claims.

Claims 1, 2, 4-7, 9, 10, 12 and 14-17 are rejected under 35 USC 102(b) as being anticipated by Archives of Biochemistry and Biophysics, Vol. 338, No. 1, pp. 22-28 (Takegawa

Takegawa et al. disclose the nucleotide sequence of the gene encoding endo- $\beta$ -N-acetylglucosaminidase from *Arthrobacter protophormiae*.

et al.). Applicants respectfully traverse the rejection.

However, Takegawa et al. do not disclose an isolated polypeptide consisting of the amino acid sequence of SEQ ID NO: 1 or an amino acid sequence resulting from substitution, insertion, deletion, and/or addition of one amino acid in the amino acid sequence of SEQ ID NO: 1 as recited in claim 1.

Takegawa et al. further do not disclose the isolated DNA consisting of the nucleotide sequence of SEQ ID NO: 3, a nucleotide sequence that is capable of hybridizing under stringent conditions to a DNA having the nucleotide sequence that is complementary to the nucleotide

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sequence of SEQ ID NO: 3, the stringent conditions being washing with an aqueous solution consisting of 1.5 mM trisodium citrate, 15 mM sodium chloride and 0.1% sodium dodecyl sulfate at 65°C, or a nucleotide sequence resulting from substitution, insertion, deletion, and/or addition of one nucleotide in the nucleotide sequence of SEQ ID NO: 3.

Accordingly, Takegawa et al. do not anticipate claims 1 and 5 and their dependent claims.

Favorable reconsideration in the form of a notice of allowance is respectfully requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3804.

52835

Respectfully submitted,

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Dated: July 21, 2004

DPM/ym

Douglas P. Muelle

Reg. No. 30,300

# RECEIVED-CENTRAL FAX CENTER JUL 2 1 2009

S/N 10/587,085

**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Yanagisawa et al.

Examiner:

Sheridan Swope

Serial No.:

10/587,085

Group Art Unit:

1652

Filed:

July 21, 2006

Docket No.:

20162.0021USWO

Title:

POLYPEPTIDE HAVING AMIDASE ACTIVITY AND GENE THEREOF

CERTIFICATE UNDER 37 CFR 1.6(d):

612.455.3801

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on July.

21,2009

By: Name:

Justine Suleski

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

# **COMMUNICATION REGARDING DEPOSIT**

Dear Sir:

The following microorganisms have been deposited with the National Institute of Advanced Industrial Science and Technology, AIST Tsukuba Central 6, 101, Higashi 1-chome, Tsukuba-shi, Ibaraki 305-8566, JAPAN, an international depository authority recognized by the Budapest Treaty.

# Arthrobacter sp. KNK 1101J

International depository authority: National Institute of Advanced Industrial Science and **Technology** 

Date of deposition: October 22, 2003 Accession Number: FERM BP-10192 Serial No.: 10/587,085

Office Action Mailed April 21, 2009

Page 2 of 2

# Escherichia coli HB101 (pHA002)

International Depository Authority: National Institute of Advanced Industrial Science and Technology

Date of deposition: January 22, 2004 Accession Number: FERM BP-10193

The applicants affirm that all restrictions imposed by the depositor on the availability to the public of the deposited biological material will be irrevocably removed upon the granting of the patent except as permitted under 37 CFR 1.808(b).

52835
PATENT TRADEMARK OFFICE

Dated: 1/21/2009

DPM/ym

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. Box 2902-0902 Minneapolis, MN 55402-0902 (612) 455-3800

Louglas P. Muelle Reg. No. 30,300

## 審式8(第7条第1项関係)

「特許手機上の微生物の脊託等の国際的承認

に関するプタベスト条約」

612.455.3801

RECOGNITION OF THE DEPOSIT OF MICROORGANISMS
FOR THE PURPOSES OF PATENT PROCEDURE

下記国際寄託当局によって規則7.1に従い 発行する。 RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT issued pursuant to Rule 7.1 by the INTERNATIONAL DEPOSITARY AUTHORITY identified at the bottom of this page.

原寄託についての受託証 氏名(名称)

奇託者

株式会社カネカ

代表取締役 武田 正利 殿

あて名 〒 550-8288

大阪市北区中之岛3-2-4

1. 微生物の表示

. 話者が付した戦別のための表示)

(受託番号)

Arthrobactor sp.KNK1101J

FERM BP-10192

11. 科学的性質及び分類学上の位置

1欄の微生物には、次の事項を配載した文章が配付されていた。

- 区 科学的性質
- 図 分類学上の位置

III. 原物託申請の受託

本因際告託当局は、 年 月 日に受領した「楠の被生物を受託する。

IV. 移管申請の受託

本国際各能当局は、平成 15 年 10 月 22 日(国内受託日)に受託した(欄の微生物を受託する。

(平成 15 年 10 月 22 日に寄託されたFBRM P- 19564 より移管)

V. 国际寄託当局

独立行政法人政策技術的合研究所 特許生物客託センター

名符 International Patent Organism Depositary

National Institute of Advanced Industrial Science and Technic

センター長 山岡 II 報道 コード ロード DI. Masakazu Yamaoka, Director ソー 記述

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AIST Tsukuba Central 6, 1-1, Higashi 1-chome Tsukuba-shi, Ibaraki-ken 305-8566 Japan

平成 16 年 (04) 12 月 24 日

## 客式8(第7条第1項関係)

「特許卓統上の微生物の寄託等の国際的承認

612.455.3801

に関するプタペスト条約」

下配国際寄託当局によって規則7.1に従い 発行する。 BUDAPEST TREATY ON THE INTERNATIONAL
RECOGNITION OF THE DEPOSIT OF MICROORGANISMS
FOR THE PURPOSES OF PATENT PROCEDURE
RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT
issued pursuant to Rule 7.1 by the INTERNATIONAL
DEFOSITARY AUTHORITY identified at the bottom of this page.

原寄託についての受託証

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寄託者

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代表取締役 武田 正利 殷

あて名

〒 530-8288

大阪市北区中之岛3-2-4

1. 微生物の表示	
. 託者が付した幽別のための姿示)	(受託母号)
E. coll HB101 (pHA002)	PERM BP-10193
11. 科学的性質及び分類学上の位置	
個の微生物には、次の事項を記載した文字が続作	付されていた。
区 料学的性質	
ビー分類学上の位置	
111. 原寄託申請の受託	
本国際委託当局は、 年 月 日に受領した	1欄の微生物を受託する。
IV. 移管申請の受託	
本国際帝託当局は、平成 16 年 1 月 22 日(国	日内受託日)に受託した1欄の微生物を受託する。
(平成 16 年 1 月 22 日に寄託されたFBRM F	P- 19646 より移営)
by Gill Dit with che also Bit	

V. 國際寄託当局

独立行政法人選案技術総合研究所 特許生物寄託センター

名称 · International Patent Organism Depositary
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平成 16 年 (04) 12 月 24 日